

any event, one would expect a decline in returns during one of the worst recessions in recent California history.

Other carriers contend that the extraordinary returns earned by the duopoly carriers represent the opportunity cost for the cellular spectrum in urban areas. However, they ignore the fact that there can be no opportunity cost for cellular spectrum because there is no possible alternative use for such spectrum under current FCC regulations. The spectrum allocated to cellular services can only be used for cellular services.

Several carriers argue further that because certain cellular prices have decreased, somehow that suggests that they are just and reasonable, notwithstanding that the carriers continue to enjoy supracompetitive profits. Under standard economic theory, supracompetitive profits in a mature industry with high entry barriers are incompatible with reasonable prices. The fact that such profits can be earned means that the prices for cellular services are greatly inflated over what they would be in an effectively competitive market. That prices may have dropped from one exorbitant level to a lower level does not mean that the lower price level is no longer exorbitant.<sup>41</sup>

The use of spectrum value to mask artificially the extraordinary returns that the cellular carriers continue to earn is equally meritless. As the CPUC explained, and the carriers

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**41.** Using Hausman's example, if Coke and Pepsi enjoyed supracompetitive earnings in a market with high entry barriers and priced their beverages at \$20 per bottle, but over time, dropped the price to \$10 per bottle, the price of either would still be excessive.

have not attempted to refute, there is no basis to claim scarcity rents for a resource like cellular which has excess capacity. As the carriers themselves like to tout, the capacity for cellular spectrum is increasing substantially with digital technology and by splitting cells and reusing channels.<sup>42</sup>

In addition, the carriers fail to acknowledge that the majority of carriers acquired the spectrum for free. Imputing a spectrum value in these cases to allow a carrier to earn a return on an investment it did not make is inappropriate. Even if a carrier has paid for a license, there is no basis to allow the carrier to earn excessive profits through high prices in order to compensate for such payment. And, contrary to LACTC's suggestion, there is nothing to prevent the carriers from including in their capital accounts those amounts that they actually paid for their licenses. In fact, it is quite possible that these accounts already include the amounts paid. Imputing a spectrum value will thus inappropriately allow returns on an investment which is counted twice.<sup>43</sup>

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**42.** See e.g., AirTouch Supp. at 17-18.

**43.** The suggestion by both GTE and CCAC that the CPUC either used different data or adjusted the data audited only by the carriers and submitted by them to the CPUC is baseless and unsupported. The CPUC, however, has not confirmed the accuracy of this data.

CCAC nevertheless complains that the CPUC did not "substantiate" the carrier-audited data provided by US West to the CPUC concerning US West's administrative and general expense. CCAC Supp. at 13. The CPUC simply noted that US West supplied no reasons why its A&G expenses increased three-fold between 1989 and 1992. The fact that such increase occurred has never been disputed by US West.

In its opposition to the CPUC's petition, LACTC argued that a spectrum value of \$85 per POP should be imputed for PCS, and contended that this value should likewise be imputed for cellular spectrum. As discussed above, it is not appropriate to impute any spectrum value. LACTC's claim, however, graphically illustrates how grossly inaccurate its analysis was. At this time, the average per POP value for spectrum is \$14, which includes major urban areas. The fact that PCS spectrum is so much lower than cellular spectrum, valued at \$200 per POP, demonstrates that cellular services, unlike PCS services, currently have the ability to extract duopoly rents.<sup>44</sup> Stated otherwise, cellular licenses are so lucrative and attractive to investors because of the ability of cellular carriers to earn supracompetitive profits.<sup>45</sup>

LACTC's revised estimate of spectrum value of \$26 per POP, based on the Los Angeles Major Trading Area PCS license, is also

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44. LACTC also ignores its prior admission that "[t]here can be no argument that the winning bidders [in the narrowband auction] anticipated either monopoly or duopoly profits from their investment." LACTC Opp. to CPUC Pet. at 26-27.

45. As stated in a 1991 report by Morgan Stanley

Investing \$170-200 per POP or more -- a valuation that many analysts suggest is warranted -- in a business that requires hard assets of less than \$20 per POP is justified only if there are enormous returns, and such returns are possibly only in an unregulated or shared-monopoly business.

Edward M. Greenberg and Catherine M. Lloyd, Telecommunications Services, POP Out: The Changing Dynamics of the Cellular Telephone Industry (Morgan Stanley, New York, April 1991).

inaccurate and overstated. While the auction value for broadband PCS licenses is a better guide than the narrowband PCS price, LACTC's estimate is still too high. Cellular license capacity is necessarily less than broadband PCS for two reasons: (1) PCS licenses are for 30 MHz, not 25 MHz; and (2) cellular licenses must reserve some capacity for analog use, while PCS can be all digital. This figure would represent an upper bound since PCS has other advantages which would tend to make this spectrum more valuable, such as broader coverage.

Finally, and not surprisingly, LACTC remains conspicuously silent on the mutually inconsistent positions it has taken on spectrum value before the FCC and CPUC on the one hand, and the California State Board of Equalization, on the other. Unlike its position in this case and in order to avoid added tax liability, LACTC argued to the latter agency that its cellular spectrum held no value and should not be factored into earnings. LACTC cannot have it both ways.

In sum, the high value accorded by the investment community to cellular spectrum can only be reasonably attributed to the cellular carriers' ability to extract duopoly rents due to the lack of effective competition today in the cellular industry. The future entry by Nextel or PCS has not reduced this value.<sup>46</sup>

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<sup>46</sup>. CPUC Reply at 59 n.93 (cellular franchises still selling in \$200 per POP range despite the potential entry by Nextel).

V. CHANGES IN CELLULAR PRICES DO NOT EVIDENCE  
COMPETITION

As discussed in the CPUC petition and reply, the fact that prices for certain cellular services have declined says nothing about whether the prices at current levels are just and reasonable, or whether the cellular industry is competitive. Likewise, the fact that a certain percentage of customers subscribe to a discount plan which is cheaper than a basic plan says nothing about whether the prices in the discount plan are reasonable. Where a customer is presented with choices of rate plans, none of which contain reasonable prices, terms and conditions, the customer will obviously choose the plan that is less expensive or burdensome to him. In the cellular industry, given the substantial similarity between the plans offered by each duopolist in a given market, the customer also has no meaningful choice between the two, and is unable to purchase similar services from a third-party provider.<sup>47</sup>

In addition, the carriers readily concede that a comparison "limited to rates of discount without taking [the costs of restrictions -- i.e., extended term contracts and stiff termination penalties] may overstate the magnitude of the savings that subscribers realize in switching to a discount plan."<sup>48</sup>

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47. For example, within two days of each other LACTC and Los Angeles SMSA filed nearly identical discount plans -- with identical minimum airtime commitment, fixed monthly charges, monthly access charges, and charges for additional airtime.

48. CCAC Opp. to CPUC Pet., Appendix A at 14.

CCAC conveniently ignores its concession here, and attempts to brush aside the transaction costs that restrictions, commonly used in discount plans, actually impose.

Moreover, the claim repeatedly touted by AirTouch that customer demand for cellular services has grown at a "phenomenal" pace again says nothing at all about whether the services are competitive or the prices of services are reasonable. It simply says that the services are desirable and essential to a certain segment of business and residential consumers. AirTouch's logic would suggest that rapid customer growth that accompanied the introduction of an unregulated monopoly telephone service to a particular community somehow equates to a finding that the monopolist offers competitive services.

The cellular carriers next maintain that the migration of demonstrates the competitiveness of cellular markets. Such migration likewise, says nothing about whether the prices contained in discount plans are reasonable, only that the plans are more desirable than basic plans to certain customers. In any event, a substantial percentage of customers continue to remain on the basic plans, paying prices that have not significantly dropped, and that are well above those contained in the discount plans. The filing of CCAC reveals that the vast majority of customers who reside in medium and smaller market areas still subscribe to the basic plans.<sup>49</sup> For example,     percent of the customers served by Cal. RSA #2,     percent of the customers

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49. CCAC Supp. at 8.

served by Modoc RSA LP, and      percent of the customers served by Contel Cellular remain on basic service plans. In mid-sized markets, over half of the customers served by Fresno MSA Limited Partnership and      percent of the customers served by Fresno Cellular Telephone Company are on basic plans. In Sacramento,      percent of customers served by Sacramento Valley LP and      percent of customers served by Sacramento Cellular Telephone Company remain on basic plans. Moreover, even in the three major urban areas in California,      of AirTouch's customers in Los Angeles,      of its customers in San Diego, and      of its customers in San Diego remain on the basic service plans.

Thus, while the carriers focus almost entirely on the prices contained in the discount plans, in fact a significant percentage of customers throughout the state are not enjoying these price benefits over the basic plans. AirTouch's consultant, Hausman, even suggests that, where given the choice, no reasonable person would subscribe to the basic service plan.<sup>50</sup> However, as LACTC acknowledged, unless a customer is in an affinity group or is a corporate user, the customer cannot take advantage of and enjoy the savings under discount plans.<sup>51</sup>

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50. AirTouch Hausman Affidavit at 3 (" a consumer who chooses a discount plan (and is presumably of sound mind and over 18 years of age) does so because the consumer is made better off.")

51. LACTC Supp. at 13.

A. The Hausman Study Does Not Show that Cellular  
Prices Are Declining Faster Than Costs

AirTouch notes that the operating income (revenues less expenses) per customer is declining over time.<sup>52</sup> This fact is completely irrelevant to the financial performance of cellular firms. Profit-seeking firms maximize return on investment, they are indifferent as to whether this is accomplished by serving a few or many customers. What the declining operating income per customer reveals is that cellular carriers have found the former alternative advantageous. AirTouch's financial performance reveals that this strategy has been successful.

Contrary to the contentions of the cellular carriers, the cost of providing cellular service is declining faster than prices. In disputing this fact, AirTouch commits the fundamental economic error of confusing expenses and costs. Marginal cost, the cost of providing an additional unit of service, not the expenses per customer, is relevant for assessing prices. Using data from a single carrier, Los Angeles SMSA, AirTouch attempts to use operating expenses per customer to demonstrate that cellular prices are competitive.<sup>53</sup> AirTouch later uses LASMSA expenses to show that there are no economies of scale.<sup>54</sup> Neither claim is supported by specific cost data, and in neither

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52. AirTouch Hausman Affidavit at 3.

53. AirTouch Hausman Affidavit at 1-2.

54. AirTouch Hausman Affidavit at 4.



case does AirTouch show that the costs per carrier have gone down.

In fact, the data illustrate the problems associated with using expenses as a proxy for cost. Between 1992 and 1993,

Does this mean that LASMSA has entered a new era of sharply declining costs and vast economies of scale? Not necessarily, but it does indicate that expenses are lumpy and changes from year to year may represent the introduction of a new technology. What is important is the costs caused by adding the next customer. Moreover, to determine whether there are economies of scale, Hausman would need to reference costs. Such determination cannot be made on the basis of expenses.

Even examining expenses is informative. Actually, in real terms between 1989 and 1993. The primary reason for this relatively slow decline is increased marketing costs. Total expenses per customer,

A more accurate view of the relevant expenses for providing cellular services would be to look at the wholesale operations. Unfortunately, CPUC annual reports do not adequately allocate between wholesale and retail operations. The CPUC recognized this problem in its Decision 92-10-026, but has been not yet instituted a revised uniform system of accounts. AirTouch further exaggerates the effect by using nominal cost changes instead of the more appropriate real cost changes it used

elsewhere in the same paragraph.<sup>55</sup> The cellular industry's prices are so far from cost that any convergence between revenue and expenses is meaningless.

B. The Hausman Study Is Fraught With Other Serious Errors

In its supplemental comments, AirTouch took the opportunity to introduce new evidence totally unrelated to the redacted material in our petition, and designed to remove some, but not all of the flaws in Airtouch's analysis identified by California and other parties in previous comments.

AirTouch observes that, "the CPUC has not demonstrated that prices have not decreased."<sup>56</sup> In fact we have maintained that prices have declined, but, as discussed, this is irrelevant for assessing the competitiveness of the industry. As the FCC has found, "even a monopolist may lower its prices as it lowers its costs or increases its capacity." (FCC 94-31 at 61)<sup>57</sup>

AirTouch now provides yet another price study, but that study actually illustrates (1) that California's regulatory

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55. AirTouch Hausman Affidavit at 2.

56. Airtouch Hausman Affidavit at 1.

57. The cellular carriers reiterate their previous mischaracterizations of the CPUC's pricing analysis. As we pointed out in our reply, our petition acknowledges that discounting has led to lower prices, that the rates for basic plans have declined in real terms, and that discount plans are the predominant mode of service. See CPUC Pet. at 34, 40, 43, App. I, App. J; CPUC Reply at 56 to 58, App. J.

program has not dampened pricing flexibility, and (2) the difficulties with using published rates to analyze price changes as the cellular carriers insist on doing. Airtouch concedes that the CPUC's regulatory program provides sufficient pricing flexibility.<sup>58</sup> According to Airtouch's new rate study, price decreases in California are similar to those in unregulated markets.<sup>59</sup>

While the CPUC has consistently maintained that rates have declined, the CPUC questions the reliability of the cellular carriers' price studies which tend to exaggerate price changes. AirTouch's abstract, assumption-laden new study raises a number of questions. Is the market price an average of the two duopolists' prices, assuming they split customers equally? Does AirTouch also assume that all carriers are on the correct discount plan, and that their calling patterns never deviate from what they anticipate when they sign up for their plan? Does AirTouch reckon that the profile of cellular customers has not changed since 1985, and that they continue to be business customers calling during business hours, i.e., that they use 80% peak, and 20% off-peak even though the share of non-business users calling during non-business hours is increasing? Why are Cincinnati, Cleveland and Phoenix included when Ohio and Arizona have requested continued regulatory authority?

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58. Airtouch Hausman Affidavit at 8.

59. Airtouch Hausman Affidavit at 5.

AirTouch also argues forcefully that capacity constraints explain why cellular rates are high in New York and Los Angeles.<sup>60</sup> This explanation directly contradicts AirTouch's claim that regulation has led to higher prices in these two markets.<sup>61</sup> AirTouch provides absolutely no evidence to support its contention that cellular rates are related to capacity constraints; however, this theory is worth testing. Given AirTouch's conviction that capacity constraints cause high cellular prices, it is inexcusable that they would completely ignore the possible effects of capacity constraints on cellular prices when trying to establish a relationship between regulation and rates.

AirTouch's cannot have it both ways: they cannot claim that their high prices for cellular service are attributable to capacity constraints and then completely ignore this consideration when trying to establish a relationship between regulation and price.

Blindness to economic considerations other than regulation was only one of the serious flaws we identified with AirTouch's analysis of the relationship between regulation and rates in our Reply. In addition, other parties demonstrated that AirTouch failed to establish any causal relationship between regulation and rates.

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60. AirTouch Hausman Affidavit Supp. at 5.

61. AirTouch Hausman Affidavit Supp. at 8.

The further analysis AirTouch provides establishes no relationship at all between state regulation and rates, let alone establishes causality. After allegedly correcting for one of the many factual, logical and economic errors that California, New York and the County of Los Angeles identified in Hausman's regulation/cost analysis, AirTouch claims, "the CPUC's objections have no merit."<sup>62</sup> AirTouch's analysis never considers economic explanations other than regulation -- even those it regards as crucial in determining price, such as capacity constraints; it disregards data that would undermine its position; it ignores standard econometric techniques for establishing causal relationships; it misuses the few economic control variables it does consider; and it misclassifies a state's regulatory status. By correcting just one of its many errors, AirTouch has not begun to substantiate its claims that the CPUC cellular regulation is causing cellular customers to pay more than they would otherwise.

C. The AG Data Corroborates Evidence That Cellular Carriers Exercise Undue Market Power

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62. AirTouch Hausman Affidavit at 9 n.9.









Finally, to resist any effort to allow new competitive entry, the cellular carriers successfully mounted a vigorous campaign to defeat state legislation designed to enhance such entry. See CPUC Pet. at 21 n.5 (opposition by LACTC and Bell South to AB 3767, Andal). And before the CPUC cellular carriers, have caused repeated delays in implementing the PUC's unbundling program to enable competition from switch-based resellers.

VI. CAPACITY UTILIZATION RATES DO NOT EXPLAIN HIGH  
CELLULAR PRICES

As we demonstrated in our reply, the cellular carriers' criticisms that we fail to recognize that capacity is lumpy or that some spare capacity is necessary are irrelevant.<sup>63</sup> Our study relied on the cellular carriers own notion of "Maximum

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63. CPUC Reply at 74-77.

Designed Capacity". We argued that capacity constraints do not explain high rates. The cellular carriers provide further evidence of this, AirTouch contends that Los Angeles and New York face similar capacity constraints, yet prices in New York have risen while prices in Los Angeles have fallen over the same period.

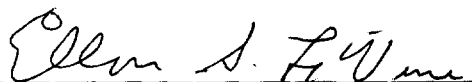
#### CONCLUSION

For all of the reasons stated herein and in the CPUC Petition and Reply, the CPUC respectfully requests that the FCC grant the CPUC petition.

Respectfully submitted,

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March 2, 1995

## APPENDIX A

**Appendix A**  
**1993 After-Tax Rates of Return**  
**Medium Sized Cellular Companies**

McCaw of Stockton	64.8%
Ventura Cellular Telephone	58.2%
Napa Cellular Telephone	62.2%
Cagal Cellular Communications	65.7%
Salinas Cellular Telephone	30.2%
Cellular 2000	15.3%
Redding Cellular Partnership	2.7%
California RSA 4	24.0%
Mountain Cellular	17.9%
Santa Cruz Celullar Telephone	16.7%
Average	35.8%

**CERTIFICATE OF SERVICE**

I, Ellen S. LeVine, hereby certify that on this 2nd day of March, 1995 a true and correct copy of the foregoing "REPLY BY CALIFORNIA TO SUPPLEMENTAL COMMENTS IN OPPOSITION TO PETITION TO RETAIN REGULATORY AUTHORITY OVER INTRASTATE CELLULAR SERVICE RATES" was mailed first class, postage prepaid to the parties on the attached list. Those parties who signed the Protective Order in PR Docket No. 94-105, as indicated by an asterisk, also received the unredacted confidential portions of this document.

  
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